

**Notice of Allowability**

Application No.

10/825,889

Examiner

David Nhu

Applicant(s)

REMINGTON ET AL.

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/22/07.
2. ☒ The allowed claim(s) is/are 1-9 and 11-24.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 60/484,088.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |



### REASONS FOR ALLOWANCE

2. Claims 1-9, 11-24 are allowed.
3. The following is an examiner's statement of reasons for allowance: None of the references of record teaches or suggests as cited in claims 1, 18, 23: providing a uniform, vaporized reactant mixture containing a titanium compound, an oxygen-containing compound, and a nitrogen compound; delivering the vaporized reactant mixture to major surface of the hot glass substrate and reacting the vaporized reactant mixture to deposit a coating of nitrogen doped titanium oxide over the major surface of the hot glass substrate during manufacture of the hot glass substrate by a float glass manufacturing process (as cited in claim 1); providing a uniform, vaporized reactant mixture comprising: a titanium compound, chosen from the group consisting of  $TiX_4$ ,  $Ti(OR)_4$  and  $Ti(NR_2)_4$ , where X=a halogen and R=an organic alkyl chain containing 1-4 carbon atoms; and oxygen-containing compound chosen from the group consisting of  $O_2$  and  $R = H$  or an organic chain containing 1-4 carbon atoms and  $R =$  an organic chain containing 2-4 carbon atoms; a nitrogen-containing compound chosen from the group consisting of  $R_xNH_{3-x}$ , where  $x=0-3$  and  $R =$  an organic chain containing 1-4 carbon atoms;  $RCN$  where  $R=$ an organic chain containing 1-4 carbon atoms;  $\overset{1}{R} \overset{1}{C}(O)N\overset{2}{R} \overset{3}{R}$ , where  $\overset{1}{R} = H$  or an organic chain containing 1-4 carbon atoms,  $\overset{2}{R} = H$  or an organic chain containing 1-4 carbon atoms and  $\overset{3}{R} = H$  or an organic chain containing 1-4 carbon atoms, and mixtures thereof; delivering said vaporized reactant mixture to the surface of said hot glass substrate and reacting the vaporized reactant mixture to deposit a coating of nitrogen doped titanium oxide on said surface of said hot glass substrate (as cited in claim 18); providing a uniform,, vaporized reactant mixture comprising titanium tetrachloride, ethyl acetate and ammonia;

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delivering said vaporized reactant mixture to the surface of said hot glass substrate under essentially, atmospheric pressure and reacting the mixture at a temperature of from 1100°F-1280°F, to deposit a coating of nitrogen doped titanium oxide on said surface of said hot glass substrate (as cited in claim 23).

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### CONCLUSION

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Morikawa et al (6,680,277 B2): Photo-catalytic Substance.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Nhu, (571)272-1792. The examiner can normally be reached on Monday-Friday from 7:30 AM to 5:00 PM.

*The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.*

David Nhu 

January 20, 2007



DAVID NHU  
PRIMARY EXAMINER